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10/803,637

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Hiroto Okawara

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EXAMINER

KHAN, USMAN A

ART UNIT

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DELIVERY MODE

12/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/803,637

Applicant(s)

OKAWARA, HIROTO

Examiner

Usman Khan

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2004 and 15 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Response to Arguments***

Applicant's arguments filed on 10/15/2007 with respect to claims 1 - 3 and 6 - 11 have been considered but are moot in view of the new ground(s) of rejection.

Regarding objection to specification provided in the previous office action for failing to provide a descriptive title. Applicant has amended the title of the invention but the title of the invention still failing to provide a descriptive title. Please provide a descriptive title for the invention.

Regarding objection to drawings provided in the previous office action for failing to label prior art in figure 10. Applicant has amended figure 10 of the invention to overcome the objection to the drawings.

Regarding objection to claims 2 - 9 provided in the previous office action. Applicant has amended claims 2 - 3 and 6 - 9 to overcome the objections to these claims. Also, the applicant has canceled claims 4 - 5.

Regarding rejection under 35 U.S.C. 101 provided in the previous office action for claim 11. Applicant has amended claim 11 to overcome the rejection under 35 U.S.C. 101 hence the rejection is withdrawn.

## DETAILED ACTION

### *Claim Objection*

**Claim 11** is objected to because of the following informalities: in claim 11, change "computer readable" to –storage—in order to provide proper antecedent basis with the original specification (p.37, ln.16). Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, and 10 – 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Oono et al. (US patent No. 6,055,378).

Regarding **claim 1**, Oono et al. teaches an image pickup apparatus, comprising:

a focus lens (Abstract, column 1 lines 50 *et seq.*, and figure 1 items L2 and L3 focusing lens group);

an operating member (figure 1 item 71);

a detection device that adapted to detect an operation amount of said operating member (figure 1 item 70 detecting the operation of the switches 71 along with detection of other switches; also column 2 lines 9 *et seq.* detecting device; also figure 1 item 22 and column 4 lines 37 *et seq.* second lens initial position sensor 22);

a first control device adapted to cause said focus lens to be moved and stopped in an optical axis direction thereof based on results of the detection by said detection device (figure 1 item M2 and/or the combination of M1/M2; also, column 5 lines 11 - 47); and

a second control device adapted to controls a moving amount of said focus lens corresponding to the operation amount of said operating member detected by said detecting device (figure 1 item M2 and/or the combination of M1/M2; also, column 5 lines 11 - 47, note the claim does not claim that the first and second control devices are separate and different device; figure 1 item 70 detecting the operation of the switches 71 along with detection of other switches; also column 2 lines 9 *et seq.* detecting device; also figure 1 item 22 and column 4 lines 37 *et seq.* second lens initial position sensor 22),

wherein said second control device is adapted to render the moving amount of said focus lens corresponding to the operation amount of said operating member detected by said detection device when the present state of said focus lens is in the first depth of focus greater than when the present state of said focus lens is in the second depth of focus, the first depth of focus being deeper than the second depth of focus (column 1 line 56 – column 2 line 55 and column 8 lines 57 *et seq.*, and column 13 lines 29 *et seq.*; when the depth of focus increases or decreases the operation of the stepper motors change i.e. when the depth of focus changes to smaller than a predetermined value the motors change functions).

Regarding **claim 6**, as mentioned above in the discussion of claim 1 Oono et al. teaches all of the limitations of the parent claim. Additionally, Oono et al. teaches that the said detection device comprises a photoelectric conversion type sensor (figure 5 item 18).

Regarding **claim 10**, Oono et al. teaches a control method for an image pickup apparatus including at least a focus lens (Abstract, column 1 lines 50 *et seq.*, and figure 1 items L2 and L3 focusing lens group), an operating member (figure 1 item 71), a detection device adapted to detects an operation amount of the operating member (figure 1 item 70 detecting the operation of the switches 71 along with detection of other switches; also column 2 lines 9 *et seq.* detecting device; also figure 1 item 22 and column 4 lines 37 *et seq.* second lens initial position sensor 22) the control method comprising:

a first control step of causing the focus lens to be moved and stopped in an optical axis direction thereof based on results of the detection by the detection device (figure 1 item M2 and/or the combination of M1/M2; also, column 5 lines 11 - 47); and

a second control step of controlling a moving amount of the focus lens corresponding to the operation amount of the operating member detected by the detection device (figure 1 item M2 and/or the combination of M1/M2; also, column 5 lines 11 - 47, note the claim does not claim that the first and second control devices are separate and different device; figure 1 item 70 detecting the operation of the switches 71 along with detection of other switches; also column 2 lines 9 *et seq.* detecting device;

also figure 1 item 22 and column 4 lines 37 *et seq.* second lens initial position sensor 22),

wherein said second controlling step comprises the step of rendering the moving amount of the focus lens corresponding to the operation amount of the operating member detected by the detection device when the present state of the focus lens is in the first depth of focus greater than when the present state of the focus lens is in the second depth of focus, the first depth of focus being deeper than the second depth of focus (column 1 line 56 – column 2 line 55 and column 8 lines 57 *et seq.*, and column 13 lines 29 *et seq.*; when the depth of focus increases or decreases the operation of the stepper motors change i.e. when the depth of focus changes to smaller than a predetermined value the motors change functions).

Regarding **claim 11**, Oono et al. teaches a computer readable medium storing a computer program for causing a computer to execute a control method for an image pickup apparatus (column 2 lines 22 *et seq.* memory storing a data table and other information used in the focusing operation) including at least focus lens (Abstract, column 1 lines 50 *et seq.*, and figure 1 items L2 and L3 focusing lens group), an operating member (figure 1 item 71), a detection device adapted to detects an operating amount of the-r4ag operating member (figure 1 item 70 detecting the operation of the switches 71 along with detection of other switches; also column 2 lines 9 *et seq.* detecting device; also figure 1 item 22 and column 4 lines 37 *et seq.* second lens initial position sensor 22), the control method comprising:

a first control step of causing the focus lens to be moved and stopped in an optical axis direction thereof based on results of the detection by the detection device (figure 1 item M2 and/or the combination of M1/M2; also, column 5 lines 11 - 47);

a second control step of controlling the focus lens to move by an amount corresponding to the operation amount of the operating member detected by the detection device (figure 1 item M2 and/or the combination of M1/M2; also, column 5 lines 11 - 47, note the claim does not claim that the first and second control devices are separate and different device; figure 1 item 70 detecting the operation of the switches 71 along with detection of other switches; also column 2 lines 9 *et seq.* detecting device; also figure 1 item 22 and column 4 lines 37 *et seq.* second lens initial position sensor 22),

wherein said second controlling step comprises the step of rendering the moving amount of the focus lens corresponding to the operation amount of the operating member detected by the detection device when the present state of the focus lens is in the first depth of focus greater than when the present state of the focus lens is in the second depth of focus, the first depth of focus being deeper than the second depth of focus (column 1 line 56 – column 2 line 55 and column 8 lines 57 *et seq.*, and column 13 lines 29 *et seq.*; when the depth of focus increases or decreases the operation of the stepper motors change i.e. when the depth of focus changes to smaller than a predetermined value the motors change functions).



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. (US patent No. 6,055,378) in further view of Norita et al. (US patent No 6,906,751).

Regarding **claim 2**, as mentioned above in the discussion of claim 1 Oono et al. teaches all of the limitations of the parent claim. Additionally, Oono et al. teaches that the image pickup apparatus comprises: a recording device adapted to record a picked-up image picked up via said focus onto a recording medium (column 3 lines 40 – 47 and column 4 lines 58 – 65 and column 8 lines 15 *et seq.* also figure 1 item 76; image data storing device such as a flash memory and a image data memory also this image is picked up via said focus), wherein second control device controls the moving amount of said focus lens corresponding to the operation amount of said operating member detected by said detection device (figure 1 item 70 detecting the operation of the switches 71 along with detection of other switches; also column 2 lines 9 *et seq.* detecting device; also figure 1 item 22 and column 4 lines 37 *et seq.* second lens initial position sensor 22; also figure 1 item M2 and/or the combination of M1/M2; also,

column 5 lines 11 - 47, note the claim does not claim that the first and second control devices are separate and different device).

However, Oono et al. fails to disclose that the second control device controls the moving amount of the focus lens in accordance with the depth of focus that has been corrected based on a pixel density of the picked-up image and a pixel density of a recorded image to be recorded onto the recording medium. Norita et al., on the second control device controls the moving amount of the focus lens in accordance with the depth of focus that has been corrected based on a pixel density of the picked-up image and a pixel density of a recorded image to be recorded onto the recording medium.

More specifically, Norita et al. discloses that the second control device controls the moving amount of the focus lens in accordance with the depth of focus that has been corrected based on a pixel density of the picked-up image and a pixel density of a recorded image to be recorded onto the recording medium (figures 24 – 26; column 3 lines 8 et seq. and displaying and recording in accordance with a focus).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Norita et al. with the teachings of Oono et al. because in column 2 lines 10 – 16 Norita et al. teaches that the camera has a function of making a judgment of whether the memory has enough free space for a new image signal to be stored; and a memory controller for erasing the oldest one of already-stored image signals from the memory if the memory has not enough space, and storing the new image signal there by there is always space for new images to be stored. Also, Norita et al. teaches in column 3 line 65 – column 4 line 2

that the camera has a function to shorten the time involved in the preliminary imaging to thereby reduce time required before the actual imaging.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. (US patent No. 6,055,378) in further view of Examiners Official Notice.

Regarding **claim 3**, as mentioned above in the discussion of claim 1 Oono et al. teach all of the limitations of the parent claim.

Additionally, Oono et al. teaches that said second control device controls member the moving amount of said focus lens corresponding to the operation amount of said operating member detected by said detection device (figure 1 item 70 detecting the operation of the switches 71 along with detection of other switches; also column 2 lines 9 *et seq.* detecting device; also figure 1 item 22 and column 4 lines 37 *et seq.* second lens initial position sensor 22; also figure 1 item M2 and/or the combination of M1/M2; also, column 5 lines 11 - 47, note the claim does not claim that the first and second control devices are separate and different device).

However, Oono et al. fails to teach that the second control device controls the moving amount of the focus lens in accordance with exposure time.

The examiner takes Official Notice that it is old and well known in the art to have a focus operation in accordance with an exposure time which is controlled by a control device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a focus operation in accordance with an exposure time to account for brightness problems in the images to be focused.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. (US patent No. 6,055,378) in further view of Okawara (US PgPub 20020041334).

Regarding **claim 7**, as mentioned above in the discussion of claim 1 Oono et al. teaches all of the limitations of the parent claim.

However, Oono et al. fails to disclose that the detection device comprises a magnetic type sensor. Okawara, on the other hand discloses that the detection device comprises a magnetic type sensor.

More specifically, Okawara discloses that the detection device comprises a magnetic type sensor (figures 12 and 13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Okawara with the teachings of Oono et al. because in paragraph 0058 Okawara teaches that the invention improves operation performance and feeling of a control system without mechanical coupling between the operation member and lens, by optimizing the relationship between the operation of an operation member and a lens drive/stop operation.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. (US patent No. 6,055,378) in further view of Sato et al. (US PgPub 5,832,318).

Regarding **claim 8**, as mentioned above in the discussion of claim 1 Oono et al. teaches all of the limitations of the parent claim.

However, Oono et al. fails to disclose that said operating member is a rotatable ring member which is disposed in concentricity with an optical axis of said focus lens, and is mechanically disconnected from the focus lens. Sato et al., on the other hand discloses that an operating member is a rotatable ring member which is disposed in concentricity with an optical axis of said focus lens, and is mechanically disconnected from a focus lens.

More specifically, Sato et al. discloses that an operating member is a rotatable ring member which is disposed in concentricity with an optical axis of said focus lens, and is mechanically disconnected from a focus lens (figures 1 and 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Sato et al. with the teachings of Oono et al. because in column 24 line 53 – column 28 line 41 Sato et al. teaches that using the invention one can reduce cost and size of device and have one operation member of controlling a plurality of operations along with other advantages outlined in this passage of the specification.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. (US patent No. 6,055,378) in further view of Applicants admitted prior art.

Regarding **claim 9**, as mentioned above in the discussion of claim 1 Oono et al. teaches all of the limitations of the parent claim.

However, Oono et al. fails to disclose that the focus lens comprises an inner focus type lens unit. Applicants admitted prior art, on the other hand discloses that the focus lens comprises an inner focus type lens unit.

More specifically, Applicants admitted prior art discloses that the focus lens comprises an inner focus type lens unit (page 1 lines 18 - 22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Applicants admitted prior art with the teachings of Oono et al. because in page 1 lines 18 - 22 Applicants admitted prior art teaches that the use of a inner focus type lens units can realize cost reductions, system simplifications, and reductions in the size and weight of a lens barrel.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim et al. (US patent No. 7,006,137) teaches using different regions of depth of focus to control a focusing lens at two different speeds.

Chigira (US patent No. 5,298,933) teaches using different regions of depth of focus to control a focusing lens at two different speeds.

Ishikawa et al. (US patent No. 6,603,929) teaches using different regions of depth of focus to control a focusing lens at two different speeds.

Ishikawa (US patent No. 4,473,743) teaches using different regions of depth of focus to control a focusing lens at two different speeds.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usman Khan whose telephone number is (571) 270-1131. The examiner can normally be reached on Mon-Thru 6:45-4:15; Fri 6:45-3:15 or Alt. Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Usman Khan  
12/17/2007  
Patent Examiner  
Art Unit 2622

  
TUAN HO  
PRIMARY EXAMINER